The absorbance (symbol: A), usually the y axis of a uv spectrum, is defined as follows.

\[
A = \log \left( \frac{I_o}{I} \right)
\]

\(I_o = \) intensity of the light entering the sample

\(I = \) intensity of the light leaving the sample

If the sample absorbs no light,

\[
I = I_o,
\]

\[
\frac{I_o}{I} = 1,
\]

\[
A = \log \frac{I_o}{I} = \log 1 = 0.
\]

If the sample absorbs light,

\[
I < I_o,
\]

\[
\frac{I_o}{I} > 1,
\]

\[
A = \log \frac{I_o}{I} > 0.
\]

Thus, the greater the amount of the light absorbed by the sample, the larger the absorbance.

Contributors
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